

CLAIMS

What is claimed is:

1. (currently amended): A method in a data processing system having a workflow that models a process, the method comprising the steps of:

generating a plan to perform an instance of the process, the plan having tasks performed by resources, wherein each resource has profiled capabilities that are considered when generating the plan to ensure that, for each task, a suitable one of the resources is selected to perform the task;

receiving modification information indicating that the capabilities of one of the resources has changed; and

assigning the resources to the tasks to generate a new plan by using the received modification information; and

improving the profiles of the resources using data mined from the generated plan.

2. (original): The method of claim 1, further comprising the steps of:

generating another plan to perform another instance of the process; and

assigning the resources to the tasks of the other plan using the received modification information.

3. (original): The method of claim 1, wherein the step of receiving modification information includes the step of assigning a new capability to the one resource that

indicates the one resource is capable of performing an additional one of the tasks.

4. (original): The method of claim 1, wherein the step of receiving modification information further includes the step of receiving replacement information that indicates that another resource should be replaced by the one resource.

5. (original): The method of claim 4, wherein the one resource and the other resource share a capability having a strength, wherein the step of receiving replacement information includes the step of increasing the strength of the one resource to exceed the strength of the other resource.

6. (original): The method of claim 1, wherein the step of receiving modification information further includes the step of receiving replacement information that indicates that the one resource should be replaced by another resource.

7. (original): The method of claim 6, wherein the step of receiving replacement information includes the step of removing one of the capabilities of the one resource to facilitate the replacement.

8. (original): The method of claim 6, wherein the one resource and the other resource share a capability having a strength, wherein the step of receiving replacement information includes the step of decreasing the strength of the one resource to below the

strength of the other resource.

9. (currently amended): A method in a data processing system having a workflow that models a process and a plurality of plans generated from the workflow that reflect instances of the process, the method comprising the steps of:

receiving a request to generate a new plan, the new plan having tasks performed by resources, wherein each resource has profiled capabilities that are considered when generating the plan to ensure that, for each task, a suitable one of the resources is selected to perform the task;

examining the plurality of plans to determine a number of the plurality of the plans that have been modified per a modification since the modified plans were created;

determining whether the number of plans exceeds a predetermined threshold; and

when it is determined that the number of plans exceeds the predetermined threshold,

generating the new plan such that the new plan incorporates the modification; and

improving the profiles of the resources using data mined from the newly generated plan.

10. (currently amended): The method of claim 9, wherein each plan includes a task that has one of ~~[[a]]~~ the plurality of resources assigned to perform the task, ~~wherein each resource has capabilities that are considered when generating each plan to ensure that a suitable one of the resources is assigned to perform the task, wherein the~~ modification is a substitution of the one resource with another resource, and wherein the

step of generating the new plan includes the step of assigning the other resource to perform the task of the new plan.

11. (original): The method of claim 10, wherein the step of assigning the other resource includes the step of assigning a new capability to the other resource that indicates that the other resource is capable of performing the task in the new plan.

12. (original): The method of claim 10, wherein the step of assigning the other resource includes the step of increasing a strength of one of the capabilities of the other resource to a level that indicates the other resource is capable of performing the task in the new plan.

13. (original): The method of claim 10, wherein the one resource and the other resource share a capability having a strength, and wherein the step of assigning the other resource includes the step of increasing the strength of the other resource to exceed the strength of the one resource.

14. (original): The method of claim 10, wherein the step of assigning the other resource includes the step of removing one of the capabilities of the one resource so that the one resource is incapable of performing the task in the new plan.

15. (original): The method of claim 10, wherein the one resource and the other resource share a capability having a strength, wherein the step of assigning the other

resource includes the step of decreasing the strength of the one resource to indicate that the one resource is not capable of performing the task in the new plan.

16. (original): The method of claim 10, wherein the one resource and the other resource share a capability having a strength, wherein the step of assigning the other resource includes the step of decreasing the strength of the one resource to below the strength of the other resource.

17. (currently amended): A computer-readable medium containing instructions for controlling a data processing system, the data processing system having a workflow that models a process, the method comprising the steps of:

generating a plan to perform an instance of the process, the plan having tasks performed by resources, wherein each resource has profiled capabilities that are considered when generating the plan to ensure that, for each task, a suitable one of the resources is selected to perform the task;

receiving modification information indicating that the capabilities of one of the resources has changed; and

assigning the resources to the tasks to generate a new plan by using the received modification information; and

improving the profiles of the resources using data mined from the newly generated plan.

18. (original): The computer-readable medium of claim 17, wherein the method further comprises the steps of:

generating another plan to perform another instance of the process; and
assigning the resources to the tasks of the other plan using the received modification information.

19. (original): The computer-readable medium of claim 17, wherein the step of receiving modification information includes the step of assigning a new capability to the one resource that indicates the one resource is capable of performing an additional one of the tasks.

20. (original): The computer-readable medium of claim 17, wherein the step of receiving modification information further includes the step of receiving replacement information that indicates that another resource should be replaced by the one resource.

21. (original): The computer-readable medium of claim 20, wherein the one resource and the other resource share a capability having a strength, wherein the step of receiving replacement information includes the step of increasing the strength of the one resource to exceed the strength of the other resource.

22. (original): The computer-readable medium of claim 17, wherein the step of receiving modification information further includes the step of receiving replacement

information that indicates that the one resource should be replaced by another resource.

23. (original): The computer-readable medium of claim 22, wherein the step of receiving replacement information includes the step of removing one of the capabilities of the one resource to facilitate the replacement.

24. (original): The computer-readable medium of claim 22, wherein the one resource and the other resource share a capability having a strength, wherein the step of receiving replacement information includes the step of decreasing the strength of the one resource to below the strength of the other resource.

25. (currently amended): A computer-readable medium containing instructions for controlling a data processing system, the data processing system having a workflow that models a process and a plurality of plans generated from the workflow that reflect instances of the process, the method comprising the steps of:

receiving a request to generate a new plan, the new plan having tasks performed by resources, wherein each resource has profiled capabilities that are considered when generating the plan to ensure that, for each task, a suitable one of the resources is selected to perform the task;

examining the plurality of plans to determine a number of the plurality of the plans that have been modified per a modification since the modified plans were created;
determining whether the number of plans exceeds a predetermined threshold; and

when it is determined that the number of plans exceeds the predetermined threshold,

generating the new plan such that the new plan incorporates the modification; and
improving the profiles of the resources using data mined from the newly generated plan.

26. (currently amended): The computer-readable medium of claim 25, wherein each plan includes a task that has one of ~~[[a]]~~ the plurality of resources assigned to perform the task, ~~wherein each resource has capabilities that are considered when generating each plan to ensure that a suitable one of the resources is assigned to perform the task~~, wherein the modification is a substitution of the one resource with another resource, and wherein the step of generating the new plan includes the step of assigning the other resource to perform the task of the new plan.

27. (original): The computer-readable medium of claim 26, wherein the step of assigning the other resource includes the step of assigning a new capability to the other resource that indicates that the other resource is capable of performing the task in the new plan.

28. (original): The computer-readable medium of claim 26, wherein the step of assigning the other resource includes the step of increasing a strength of one of the capabilities of the other resource to a level that indicates the other resource is capable of

performing the task in the new plan.

29. (original): The computer-readable medium of claim 26, wherein the one resource and the other resource share a capability having a strength, and wherein the step of assigning the other resource includes the step of increasing the strength of the other resource to exceed the strength of the one resource.

30. (original): The computer-readable medium of claim 26, wherein the step of assigning the other resource includes the step of removing one of the capabilities of the one resource so that the one resource is incapable of performing the task in the new plan.

31. (original): The computer-readable medium of claim 26, wherein the one resource and the other resource share a capability having a strength, wherein the step of assigning the other resource includes the step of decreasing the strength of the one resource to indicate that the one resource is not capable of performing the task in the new plan.

32. (original): The computer-readable medium of claim 26, wherein the one resource and the other resource share a capability having a strength, wherein the step of assigning the other resource includes the step of decreasing the strength of the one resource to below the strength of the other resource.

33. (currently amended): A data processing system comprising:

a secondary storage device further comprising a workflow that models a process;
a memory device further comprising a program that generates a plan to perform
an instance of the process, the plan having tasks performed by resources,
wherein each resource has profiled capabilities that are considered when
generating the plan to ensure that, for each task, a suitable one of the
resources is allocated to perform each task, that allocates one of the
resources to perform at least one of the tasks, that receives modification
information indicating that the capabilities of the one resource has
changed, that generates a new plan to perform another instance of the
process, and that allocates the resources to the tasks of the new plan using
the received modification information, and that improves the profiles of
the resources using data mined from the generated plan; and
a processor for running the program.

34. (original): The data processing system of claim 33, wherein the modification
information indicates that the one resource has been replaced by another resource in at
least one of the tasks in the plan.

35. (original): The data processing system of claim 34, wherein the modification
information further indicates that one of the capabilities of the one resource should be
removed.

35. (original): The data processing system of claim 34, wherein the one resource and the other resource share a capability having a strength, wherein the modification information further indicates that the strength of the other resource should be increased to exceed the strength of the one resource.

37. (original): The data processing system of claim 34, wherein the modification information further indicates that the other resource should be assigned a new capability that indicates the other resource is capable of performing the at least one of the tasks in the new plan.

28. A system having a workflow that models a process, the system comprising:
means for generating a plan to perform an instance of the process, the plan having tasks performed by resources, wherein each resource has profiled capabilities that are considered when generating the plan to ensure that, for each task, a suitable one of the resources is selected to perform the task;

means for receiving modification information indicating that the capabilities of one of the resources has changed; and

means for assigning the resources to the tasks to generate a new plan by using the received modification information; and

means for improving the profiles of the resources using data mined from the generated plan.